

## **Seminar Summary**

### **The Clean and Efficient Use of Fossil Energy for Power Generation in Thailand**

**The Joint Eight APEC Clean Fossil Energy Technical Seminar  
and Seventh APEC Coal Flow Seminar**

By  
Sun Chun and Charles J. Johnson

This was the first seminar that brought together two previously successful seminar series into one joint seminar. The eighth APEC Clean Fossil Energy Technical Seminar was combined with the Seventh APEC Coal Flow Seminar. Organizers from both seminar series worked with the host, the National Energy Planning Office of Thailand in planning for and implementing the joint seminar.

The seminar was organized in response to the request of the host government for the need for a group of experts to share technical, economic, environmental and policy information related to the use of clean energy. Emphasis was placed on the experiences of various APEC economies in dealing with coal-related pollution.

The seminar broke three attendance records, including the number of participants (268), the number of women participants (60), and the number of overseas participants (76). Twelve APEC economies participated in the seminar.

The seminar was organized under the direction of Australia, Canada, Japan, Thailand (host) and The United States. Sponsors included the National Energy Policy Office of Thailand, Ministry of International Trade and Industry of Japan, New Energy and industrial Technology Development Organization of Japan, The Japan Committee for Pacific Coal Flow of Japan and the Department of Energy of the United States.

The seminar opened with a session on broader APEC wide issues of sustainable development, environmental impacts on fossil fuel use, and implications of deregulation of the electricity sector and fossil fuels use. Numerous case studies were presented, and included Australia, Canada, PR China, Chinese Taipei, Hong Kong (China), Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Thailand, United States, and Vietnam.

The specific energy environmental situation in Thailand was reviewed, and papers were presented that showed the low emissions and high efficiencies being achieved with recently commissioned power plants using advanced technologies. Speakers addressed pollutants having local and regional impacts, primarily particulates, SO<sub>2</sub> and NO<sub>x</sub>, plus CO<sub>2</sub> emissions having global greenhouse gas impacts. Considerable attention was given to R&D underway into options to reduce CO<sub>2</sub> emissions, and included papers on both benefits increased energy efficiencies and the capture and sequestration of CO<sub>2</sub>. Two speakers suggested that zero greenhouse gas emissions technologies should be among the long-term research areas.

Numerous speakers emphasized the need to do a better job in seeking public participation in energy and environmental planning. Also, most government and industry speakers suggested the need for the fossil fuels industry to continue its efforts to achieve higher environmental standards. The ambitious plans in the United States to develop very high efficiency technologies with very low emissions were presented (Vision 21 program), indicating the large potential gains from ongoing research. The comments of one senior speaker from Japan's coal sector reflected the changing attitude of the coal sector toward environmental issues in his statement that we must "be friendly to the earth".

The importance to each economy of maintaining a diversified energy mix was emphasized. The projections by most economies indicated that the amount of coal and natural gas is expected to increase in the future. Asia-wide consumption of coal was projected by one speaker to double within 20 to 25 years; further necessitating continued efforts to ensure enforcement of sound environmental legislation, and the introduction of clean coal technologies, and greater use of natural gas and renewable energy.

A session on clean fuels in the APEC region, discussed the need for cleaner fuels for the transportation sector to reduce urban pollution. Alternative cleaner fuels were discussed and compared with respect to their implications to pollution.

Audience participation, both from the host economy and overseas participants, was active after every session, and suggests that more time should be allowed for questions and answers in future seminars.

The host government, Thailand, generously supported the seminar, and provided able assistance in all aspects of the actual workshop.